YADONG JIANG

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Dr Nicholas A Alexander
Room 0.37b, Queen's Building
University Walk
Bristol, BS8 1TR
United Kingdom

Dear Dr Alexander:

I am writing to apply for the research associate position of the SAFER project, which was advertised on the University of Bristol website. I am completing my PhD in Earthquake Engineering and Engineering Seismology at the Istituto Universitario di Studi Superiori di Pavia (IUSS) with an expected graduation date of May 2018. My PhD research, titled with Seismic Assessment of Composite Frames with Concrete-Filled Steel Tube Columns (CFST), focuses on a comprehensive study on concrete-filled steel tube (CFST) columns from element level to structure level. By conducting experimental tests on 36 CFST specimens, the flexural behaviour of CFST member is characterized to be good. Through numerical study, the composite effects of CFST member are found to have a positive influence on its bending capacity. I suggest using the material strength correction equations, which are derived based on a comprehensive parametric study, to account for the composite effects. In my dissertation, a good seismic performance of the composite structure is confirmed by carrying out the Incremental Dynamic Analysis (IDA) with the consideration of steel tube ductile fracture. As my curriculum vitae illustrates, there are 11 journal/conference papers related to my research published and I have attended 6 conferences/workshops to present my research achievements orally.

In addition to my PhD research, I was contracted by Hong Kong Polytechnic University (PolyU) and got involved in the project Application of Polygonal High Strength Concrete-filled composite Column in Seismic-resistant Buildings in Hong Kong for four months. During my stay in Hong Kong, I collaborated with the local PhD students to prepare the CFST specimens and to conduct the steel coupon tests. My experiences in PolyU not only enhance my laboratory experiences but also strengthen my teamwork skills. Through my undergraduate and postgraduate study, I have developed good programming skills in Matlab and Python, which accelerate my work progress and make it possible to complete my research in three years. In the meantime of conducting my research, I had assisted three MSc students with their final projects. The supervision experiences make me find that the collaboration with other students/researchers can always inspire me new ideas. During my postgraduate training, I have taken the courses Seismic Design of Foundations and Seismic Isolation and Dissipation, which I believe can make me adapt to your project smoothly.

It is my goal to secure a position where I can put my energies into the Earthquake Engineering field. Your SAFER project, which includes innovational seismic device design and challenging shaking table tests, has attracted me. I am confident my background, laboratory experiences and programming skills qualify me for the research associate position. I am enclosing my curriculum vitae for your kind perusal. If you require any additional materials or information, I will be glad to supply. Thank you for your consideration and I look forward to hearing from you soon.

Sincerely,
Yadong Jiang
PhD Candidate, ROSE Programme
Istituto Universitario di Studi Superiori di Pavia (IUSS), Pavia, Italy